

IN THE ABSTRACT:

The Abstract of the Disclosure has been amended as follows:

~~In a ring topology network, a number of nodes interconnect transmission links to form first and second working rings and first and second optical protection rings in a ring topology.~~
Multiple working paths are established on each working ~~[[ring]]~~ rings and multiple protection paths are established on each of multiple protection ~~[[ring]]~~ rings ~~corresponding to the working paths.~~ A ~~[[first]]~~ working path on a first working ring spans across first and second nodes for signal transmission ~~of a signal~~ in a first direction of the ring ~~topology~~, and a ~~second~~ working path ~~[[of the]]~~ on a second working ring spans across the first and second nodes for signal transmission ~~of a signal~~ in a second, opposite direction of the ring. ~~topology opposite to the first direction.~~ A ~~[[first]]~~ protection path on ~~[[the]]~~ a first protection ring spans across the first and second nodes for ~~transmission of a signal~~ transmission in ~~[[the]]~~ said second direction, ~~of the ring topology~~, and a ~~second~~ protection path ~~of the~~ on a second protection ring spans across the first and second nodes for signal transmission ~~of a signal~~ in ~~[[the]]~~ said first direction ~~of the ring topology~~. The first and second nodes normally use the ~~first and second~~ working paths, respectively. When one of the working paths fails, the first and second nodes use a corresponding protection path. ~~Responsive to a failure of one of the first and second working paths, the first and second nodes use a corresponding one of the first and second protection paths, instead of the failed working path.~~